CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM STATEMENT OF INVESTMENT POLICY

FOR THE INFLATION-LINKED ASSETS CLASS

April 11, 2011

This Policy is effective upon adoption and supersedes all previous policies on inflation-linked assets, commodities, and inflation-linked bonds, infrastructure, and forestland.

I. PURPOSE

The California Public Employees' Retirement System ("CalPERS") Total Fund Statement of Investment Policy, adopted by the CalPERS Investment Committee ("Committee"), sets forth CalPERS overarching investment purposes and objectives with respect to all its investment programs.

This document sets forth the investment policy ("Policy") for the Inflation Linked Asset Class ("IL Asset Class" or "Program"). The design of this Policy ensures that investors, managers, consultants, and other participants selected by the CalPERS take prudent and careful action while managing the Program. Additionally, use of this Policy assures sufficient flexibility in managing investment risks and returns associated with this Program.

The Program includes <u>twofour</u> components: commodities <u>and</u>, inflation-linked bonds, infrastructure, and forestland. The Policy includes investment guidelines for the Program structure followed by an attachment for each component.

- A. Attachment A Commodities ("Commodities Program") and
- B. Attachment B Inflation-Linked Bond Program ("ILB Program")

II. STRATEGIC OBJECTIVE

The Program shall be managed to accomplish the following:

- A. Prudently achieve long-term returns above inflation:
- B. Diversify CalPERS investments; and
- C. Hedge against inflation <u>risks</u>.

III. RESPONSIBILITIES

A. CalPERS Investment Staff ("Staff") is responsible for the following:

- 1. All aspects of portfolio management including monitoring, analyzing, and evaluating performance relative to the appropriate benchmark.
- 2. Reporting to the Committee <u>annually and more if needed about</u> the <u>performance of the externally managed programs; and</u> quarterly or more frequently if needed about the <u>performance of the internally managed Programs</u>.
- 3. Monitoring the implementation of, and compliance with, the Policy. Staff shall report material concerns and all Policy violations at the next quarterly report to the Committee or sooner if deemed by the Chief Investment Officer ("CIO) as necessary. in a timely manner and in writing to the Committee. These reports shall include explanations of any violations and appropriate recommendations for corrective action.

The Senior Investment Officer, <u>Global Fixed Income</u><u>IL Asset Class</u> ("SIO-ILAC") will be responsible for the Program and may delegate investment management of Program assets to either <u>external managers</u> or other internal units.

B. The General Consultant ("Consultant") is responsible for:

Monitoring, evaluating, and reporting periodically to the Committee, on the performance of the Program relative to the benchmark and Policy.

- C. For those programs that are managed by an External Manager ("Manager"), the Manager is responsible for aspects of portfolio management as set forth in each Manager's contract with CalPERS and shall, at a minimum, fulfill the following duties:
 - 1. Communicate with Staff as needed regarding investment strategy and investment results.
 - 2. Monitor, analyze, and evaluate performance relative to the agreed upon benchmark.
 - 3. Cooperate fully with CalPERS Staff, <u>Custodian</u>, and consultant assigned to the Program concerning requests for information.

IV. PERFORMANCE OBJECTIVE AND BENCHMARK

A. The performance objective is to outperform the Program benchmark, net of all fees, over rolling five-year periods.

B. The <u>performance objective and the</u> benchmarks for the Program and for each of the <u>twofour</u> components are specified in the Benchmark Modification and Benchmark Details Policy.

V. INVESTMENT APPROACHES AND PARAMETERS

A.IL Asset Class Program Allocations

The specific Investment Approaches ad Parameters for the components of the program (ILB and Commodities) are detailed in the appropriate attachment.

Program allocation targets and ranges are listed in Table 2 below. Allocations are expressed as a percentage of the market value of the CalPERS fund.

Table 2: Program Allocations

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Component	<u>Target*</u>	<u>Range*</u>		
Commodities	1. <u>0</u> 5%	0.5 0 % - 3.0 0 %		
Inflation-linked bonds	<u>3</u> 1.0%	<u>1.0</u> 0.50% - <u>5</u> 3.0 0 %		
Infrastructure	1.5%	0.00% – 3.00%		
Forestland	1.0%	0.00% – 2.00%		
IL Asset Class	<u>4</u> 5.0%	<u>1.50</u> 0.00% - <u>7</u> 5.00%		

^{*} Percentage of the CalPERS Fund.

The allocation ranges in Table 2 will apply when the market value of Program assets equals or exceeds two percent of the CalPERS fund.

B.Prohibited Investments

Ineligible investments include the following:

- 1.Tobacco companies; and
- 2.Any investment prohibited by CalPERS Insider Trading Policy or Restricted Company list.
- <u>3.1.</u> Any other Committee-approved restriction.

VI. CALCULATIONS AND COMPUTATIONS

Investors, managers, consultants, and other participants selected by CalPERS shall make all calculations and computations on a market value basis as recorded by CalPERS Custodian.

VII. GLOSSARY OF TERMS

Key words used in this policy are defined in CalPERS Master Glossary of Terms.

Approved by the Policy Subcommittee:

Adopted by the Investment Committee:

Technical Revision to Reflect Benchmark Name Change:

Administrative changes made due to Policy Review Project:

Admin changes due to adoption of Benchmark Policy:

Revised by the Policy Subcommittee:

Approved by the Investment Committee:

Approved by the Policy Subcommittee

April 19, 2010

May 17, 2010

Approved by the Policy Subcommittee

April 11, 2011

(Revised with Name Change):

COMMODITIES PROGRAM

April 11, 2011

I. PURPOSE

This attachment to the Inflation-Linked Assets Class Policy sets forth the investment policy ("Commodities Policy") for the CalPERS commodities investments ("Commodities Program"). The Commodities Program includes overlay exposures and collateral investments.

II. STRATEGIC OBJECTIVE

The Program shall be managed to accomplish the following:

- A. Enhance CalPERS risk-adjusted returns;
- B. Diversify CalPERS investments; and
- C. Hedge against inflation risks.

III. RESPONSIBILITIES

Responsibilities are described in the Inflation-Linked Assets Policy, Section III.

IV. PERFORMANCE OBJECTIVE AND BENCHMARK

A. The performance objective for the Program is to outperform the Benchmark, net of all fees. The Commodities Program benchmark is the S&P GSCI Total Return Index ("S&P GSCI TR Index").

B.The performance objective is the benchmark, net of all fees.

V. INVESTMENT APPROACHES AND PARAMETERS

A. Permitted Investment Instruments

The following classes of Commodities Program overlay instruments are permitted:

- 1. <u>Futures</u> contracts;
- 2. Forward contracts:

- 3. Swaps;
- 4. <u>Structured notes</u>; and
- 5. Options.

Individual positions may be long or short the commodity risk exposure.

Direct investments in physical commodities are not permitted.

<u>Derivative</u> Instruments may be standardized and exchange traded (e.g., futures), or privately negotiated and over-the-counter (<u>OTC</u>), e.g., swaps.

B. Instrument Risk Exposure

The risk exposure of the investment instruments may be long or short, or a combination of both.

The underlying risk exposure may be to a <u>cash commodity</u> or a commodity derivative.

Instruments incorporating multiple commodity risk exposures, such as commodity baskets and commodity indices, are allowed.

The risk exposure for exchange traded instruments is with the exchange's clearinghouse, and with the approved counterparty for OTC transactions.

C. Listing Requirements

Exchange traded commodity futures, options and any related instruments may be traded on any exchange regulated by the CFTC (Commodities Futures Trading Commission) or the FSA (Financial Services Authority) of the United Kingdom, or on any exchange that lists a commodity future included in the Commodities Program benchmark.

D. Counterparty Requirements

1. Counterparty creditworthiness, for non-exchange traded derivatives, shall be at a minimum of "A3" as defined by Moody's Investor Service, "A-" by Standard & Poor's and "A-" by Fitch. The use of counterparties holding a split rating with one of the ratings below A3/A- is prohibited. The use of unrated counterparties is prohibited unless the counterparty is a wholly owned affiliate of a parent company that unconditionally guarantees payment and meets the above credit standards.

- Individual counterparty exposure, for non-exchange traded commodity derivatives, is limited to the 40% of the net notional option-adjusted exposure of the Commodities Program at the inception of a new position. An exception is allowed if the total nonexchange traded commodity derivatives exposure is less than \$1 billion.
- 3. Swaps shall be settled monthly.
- 4. Any entity acting as counterparty shall be regulated in either the United States or the United Kingdom.

E. Other Risk Management

- 1. **Liquidity risk** shall be managed by adhering to the above counterparty requirements.
- 2. **Legal risk** will be minimized by engaging in over-the-counter (OTC) derivative transactions only where such transactions are enforceable under the laws of the governing jurisdiction and will be governed by an International Swaps and Derivatives Association, Inc. (ISDA) agreement where applicable.
- 3. **Pricing risk** will be minimized by using standardized or market accepted instruments for OTC derivatives. Exchange-traded derivatives will be used when appropriate to minimize pricing risk.
- 4. Sector risk will be mitigated by maintaining net option-adjusted commodities exposures within plus and minus twenty percentage points of benchmark weights for the following commodity overlay sectors: energy, metals, and "soft" commodities (currently food and other agricultural products). The benchmark commodity index provider will be the source in determining the sector of individual commodities. Each of these three sectors shall have a positive net option-adjusted commodities exposure.

F. Commodity Collateral

1. Collateral Market Value

The market value of the commodities collateral shall be maintained at 100% or greater of the net option-adjusted notional value of the commodities overlay exposure at the time of any new commodities overlay position. The intent of this constraint is to avoid incurring economic leverage (commodities value exceeding the value of the

collateral) due to investing in commodities, while recognizing that the amount of collateral relative to the amount of commodities exposure may drift from time to time due to a variety of possible factors, which may cause the collateral value to drop below the value of commodities. If the collateral market value falls below the net option adjusted value of the overlay, portfolio adjustments will be made at the earliest opportunity to bring the collateral value up to the notional value of the overlay.

2. Permitted Investments

The following classes of Commodities Program collateral investments are permitted.

- a. Units of an internal short term investment fund ("STIF");
- b. Inflation linked bond investments held in the IL Asset Class (subject to no more than 20% of the Commodities Program);
- c. Cash or treasury debt obligations used for futures margin requirements; and
- d. Any receivable due from an approved counterparty to a commodity-related investment.

Approved by the Policy Subcommittee: December 15, 2006 Adopted by the Investment Committee: December 18, 2006 Revised by the Policy Subcommittee: December 14, 2007 Approved by the Investment Committee: February 19, 2008

INFLATION-LINKED BOND PROGRAM

April 11, 2011

I. PURPOSE

This attachment to the Inflation-Linked Assets Class Policy sets forth the investment policy ("Policy") for Inflation-Linked Bond investments (ILB Program).

II. STRATEGIC OBJECTIVE

The Program shall be managed to accomplish the following:

- A. Enhance CalPERS risk adjusted returns;
- B. Diversify CalPERS investments; and,
- C. Hedge against inflation risks.

III. RESPONSIBILITIES

Responsibilities are described in the Inflation-Linked Assets Class-policy, section III.

IV. PERFORMANCE OBJECTIVE AND BENCHMARK

- A. <u>The performance objective is to outperform the Benchmark, net of all fees.</u> The ILB Program <u>benchmark</u> is a blend of 66.7% Barclays Capital Global Inflation-Linked U.S. and 33.3% Barclays Capital Global Inflation-Linked FR, DE, IT, JP, GB only, unhedged.
- B. The performance objective is to outperform the benchmark, net of all fees.

V. INVESTMENT APPROACHES AND PARAMETERS

In consideration of the initial phase-in period needed to implement a new ILB Program and the difficulty of achieving cost-effective diversification for small portfolios, the permitted ranges in subsections A, C, D, and E4 of Policy section V apply when the market value of the ILB Program exceeds \$1 billion. The other Policy language applies at all times.

A. Permitted Investments and Ranges

ILB Program targets and permissible ranges as a percentage of total portfolio are listed below:

Sector	Policy target	Permitted range
Total investment grade inflation-linked government bonds	100%	80-100%
U.S. inflation linked bonds	67%	47-87%
Investment grade international inflation-linked bonds	33%	13-53%
Non-government investment grade inflation-linked bonds	0%	0-10%
Investment grade nominal government bonds	0%	0-10%
Short-term fixed income	0%	0-10%
Non-investment grade inflation-linked government bonds	0%	0-5%

The market value of non-index investments, defined as the sum of the last four rows of the above table, shall not exceed 20% of the ILB Program.

<u>Derivatives</u> with risk and return characteristics substantially similar to bonds or bond indices included in the Program benchmark are permitted. Any use of derivatives shall be in compliance with the CalPERS Derivatives Investment Policy as stated in Section IX of the CalPERS Dollar-Denominated Fixed Income Program Policy.

B. Interest Rate Risk

Interest Rate Risk is the price volatility produced by changes in the overall level of interest rates as measured by option-adjusted <u>duration</u>. Duration shall be maintained at $\pm 10\%$ one year of the benchmark duration.

C. Sovereign Ranges

The non-U.S. segment of the ILB benchmark is a custom benchmark of ILBs issued by selected countries in the Barclays Capital Global Inflation Linked Index based on size and liquidity criteria. The selected countries and weights as of September 30 Febuary, 201107 are listed in the table below and may be revised based upon periodic review.

Issuer	Benchmark Issuer Weight*	Range
United Kingdom	15%	5-25%
France	<u>9</u> 10%	0- <u>19</u> 20%
Italy	5%	0-15%
Japan	<u>2</u> 3%	0-1 <u>2</u> 3%
Germany	<u>2</u> 1%	0-1 <u>2</u> 4%

^{*} Benchmark issuer weights as of <u>September Febuary</u> 200711. Total may not sum to 100% due to rounding.

The minimum portfolio allocation to each non-U.S. country shall be the greater of either zero or ten percentage points less than the benchmark weight. The maximum ILB investment by country shall be ten percentage points greater than the benchmark weight. The resulting permissible allocation ranges by country as of <u>FebuarySeptember 2830</u>, 200711 are listed in the right column of the above table.

D. Currency Risk

Currency Risk is the risk of having different weights in currency than the index. The permissible currency ranges shall be consistent with the sovereign ranges (Section V.C.) of \pm 10% of the benchmark weights. The table below lists the currency ranges as of September 30 Febuary 28, 201107. Note, since Italy, France and Germany use the Euro as a currency, the upper end ranges for each country have been combined to equal $\underline{46}$ 45% top end range for Euro exposure (France, Italy and Germany's top range is 20%, 15% and 11% respectively).

Currency Allowable Ranges

Currency	Benchmark Weight*	Range
Euro	1 <u>6</u> 5%	0-46%
UK Sterling	15%	5-25%
Japanese Yen	<u>2</u> 3%	0-1 <u>2</u> 3%

^{*}Benchmark weights are as of September Febuary 2007 11.

E. Restrictions and Prohibitions

1. Except for government issuers, investments in a single issuer shall not exceed 2% of the Inflation-Linked Bond Portfolio during the

- holding period for such investment. For <u>High Quality LIBOR</u> and <u>STIF</u>, no single issuer limit exists.
- 2. Non-investment grade securities are not to exceed 5% of the total portfolio.
- 3. Portfolio <u>leverage</u> is not permitted at any time.
- 4. Sections V.A and V.C of this attachment specify sector and issuer ranges.
- 5. All non-US securities must be compliant with the <u>Foreign Debt Policy</u> which specifies minimum credit ratings. The Foreign Debt Policy is included as Attachment B1

Approved by the Policy Subcommittee:

Adopted by the Investment Committee:

Technical Revision to Reflect Benchmark Name Change:

December 14, 2007

February 19, 2008

December 15, 2008

Attachment B1

<u>Local-Currency Debt of National Governments and All Debt of Corporations and Subnational Governments (i.e. Provincial, State and Municipal)</u>

- 1. Both the issuer and issuer's national government (if the issuer is not the national government itself) must be rated investment grade, at least BBB- by S&P or Fitch, or Baa3 by Moody's. Even in the case of local-currency debt, this requirement must be satisfied by long-term foreign currency ratings instead of local-currency ratings, which are generally higher because a country can easily print more of its own currency to meet its local debt obligations. This unconventional, very conservative application of the rating requirement will give extra protection against the special foreign-exchange valuation and retrieval risks of local currency.
- 2. The country must be part of the Barclays Capital Global Aggregate Index, a widely followed index which includes only those local markets that are fairly liquid and fairly well developed.
- The country's currency must be fully convertible in the spot market for foreign investors, so that Managers may retrieve CalPERS funds without limit or obstruction.

Global Debt Issued by National Governments

The policy stipulation for global debt issued in major markets differ somewhat for holdings denominated in major non-dollar currencies and for holdings denominated in the dollar. The difference is found on the approach to limiting portfolio concentration in emerging markets, while minimum credit rating requirements are the same for both. The stipulation is as follows:

For externally managed portfolios, global bonds issued by national governments must have a credit rating of BB- or higher from S&P or Fitch and Ba3 or higher from Moody's.

INFRASTRUCTURE PROGRAM

May 17, 2010

This Policy is effective upon adoption.

I. PURPOSE

This attachment to the Inflation-Linked Asset Policy sets forth the investment policy ("Policy") for the Infrastructure Program ("Program").

II.STRATEGIC OBJECTIVE

The Program shall be managed, consistent with CalPERS fiduciary responsibility as set forth in the CalPERS Total Fund statement of policy, to accomplish the following:

- A.Preserve investment capital;
- B.Generate attractive risk-adjusted rates of return for CalPERS as a total return investor, including the following components:
 - 1.Provide, at a minimum, moderate cash flow from operations with the generation of cash flow secondary to producing long term total returns; and,
 - 2.Provide appreciation potential as a result of employing operational improvements and active best management techniques and practices.
- C.Hedge against inflation;
- D.Hedge against long-term liabilities;
- **E.Diversify CalPERS investments:**
- F.Establish CalPERS reputation as a premier infrastructure investment manager and investor of choice within the investment community:
- G.Act as a responsible steward of Program investments through efficient operation of assets, delivery of quality services, utilization of responsible labor and management practices and implementation of responsible environmental practices: and,

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	operations	CCC	GGG
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NNNN. The average leverage level for the infrastructure portfolio shall not exceed 65%. Individual investments may exceed the average leverage guideline depending upon the rating of the debt, debt service coverage and the general characteristics of the investments. Investments exceeding 50% leverage shall be presented to the Committee for review and approval. As more investments are made in the portfolio and investments are made in different geographies, subsectors and with various investment managers, leverage levels will subsequently decrease below the stated average leverage level. Staff will report the average level of leverage in the program to the Committee on a quarterly basis.

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PPPPP.Investment Type Risk Matrix

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RRRR.The table below classifies investment types by risk for the purposes of investment selection and portfolio construction. The program will primarily target investments in the low and medium risk categories. Investments in the higher risk category will be considered to be part of the opportunistic segment and will not exceed 20% of program.

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TT	TTT.Risk Matrix		
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HHHHHHH. Power projects with significant commodity risks will be excluded unless such risks are mitigated or hedged. Merchant power projects which assume a spot price risk for power will be excluded.

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JJJJJJ.Regional Allocation

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RRR	TTTT	UUUUUU. Canada, Mexico, UK, Australia, Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Korea, Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey
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AAAAAA. Staff will be guided by the CalPERS Emerging Market Principles in the case of direct investments in such countries and will report any investments on an annual basis. In the case of funds or partnership investments where CalPERS is a minority investor staff will report any emerging market investments relative to CalPERS Emerging Market Principles on an annual basis to the Committee.

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CCCCCCC.Concentration Limits

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single investment	of committed capital			
in a partnership				
or fund				
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e CalPERS	CalPERS Infrastructure			
commitment to a	Program allocation			
single general				
partner, fund or				
separate account				
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single direct	of CalPERS Infrastructure			
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investments				

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QQQQQQQ.Domestic Public Private Partnerships

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SSSSSSS. It is the intent of this policy that in evaluating those domestic Public Private Partnerships ("PPPs") in which CalPERS may invest, that Staff, and where appropriate, the Committee will consider the extent to which the sponsoring public entity and the investor(s) share in the benefits and risks associated with the PPP.

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UUUUUUU. Infrastructure assets, by definition, support services that benefit society as a whole and are intended to serve a long and useful life. Recruiting and training a high quality workforce associated with these assets may lead to long term economic value by providing safe, reliable, efficient and high quality services.

VVVVVVVV.

WWWWWW.Domestic Responsible Contractor Program, Preference and Domestic Public Sector Jobs

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YYYYYYY. 1. Responsible Contractor Policy and Preference

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AAAAAAAA. a. Staff shall secure written agreement from managers of any investment vehicle, for which the Responsible Contractor Program ("RCP") applies, such that all contractors, investors, managers, consultants or other participants shall adhere to CalPERS investment policy for the RCP, as amended from time to time by CalPERS, in its sole discretion.

BBBBBBBBB.

CCCCCCC.Preference: Staff shall give a strong preference to all domestic infrastructure investment vehicles that have adopted an internal policy regarding responsible contracting consistent with the CalPERS RCP subject to CalPERS fiduciary duty.

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EEEEEEE. This preference shall apply to any domestic infrastructure investment vehicle for which the RCP is not applicable by its terms other than to make a good faith effort to comply with the spirit of the policy. This specifically applies to investments including, but not limited to, commingled funds, opportunity funds, mezzanine debt, and hybrid debt investments.

GGGGGGG.If the manager of any domestic investment vehicle does not agree to comply with Sections VI (D)(1)(a) or adopt an internal policy regarding responsible contracting, and, if Staff deems it appropriate based on all the circumstances, including the intent of this Policy as well as the investment merits of the investment vehicle, Staff may recommend the potential investment to the Committee and the Committee shall make a determination whether or not to invest in such investment vehicle.

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IIIIIIII.Enforcement: In the event it is determined that during the life of an investment vehicle there is a violation of the above stated terms, Staff shall be precluded from making an investment in a follow on fund with the investment manager. If Staff determines it appropriate, based on all the facts and circumstances, Staff may recommend the investment in the follow on fund to the Committee, which will determine whether to invest in the follow on fund consistent with its fiduciary duty. In addition, in situations where the RCP applies by the terms of this policy, all terms of the RCP including enforcement related terms would apply.

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KKKKKKKKK.	Domestic Public Sector Job
HIIIIII	

MMMMMMMM. a. CalPERS intends, consistent with Section II and with CalPERS constitutional and statutory duties to act solely in the interest of, and for the purpose of providing benefits to, participants and their beneficiaries and to make sound and prudent investments, not to make investments that will result in job losses to CalPERS members. If CalPERS staff determines that it is in the best interest of CalPERS, consistent with CalPERS fiduciary responsibilities, to consider an investment that would directly impact California public sector jobs, staff will present the investment to the Committee for consideration.

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OOOOOOOO. b. Staff shall secure a written agreement from the managers of any domestic investment vehicle (as described herein) that states, substantially in all material respects, that "in circumstances where the investment vehicle is working with a domestic state, local or municipal agency to establish PPPs or to bid on public offers for the sale, lease or management of public assets, the investment vehicle shall make every good faith effort to recognize the important role and contribution of public employees to the development and operation of such assets. In particular, the investment vehicle shall make every good faith effort to ensure that such transactions have no more than a de minimis adverse impact on existing employees. These efforts shall include working directly with public employees, government officials, or collective bargaining groups, as appropriate, in order to take such reasonable actions as may be within the investment vehicle's control to mitigate such potentially adverse effects. Compliance with this requirement shall be a key consideration by CalPERS when reviewing any future investment opportunities with an investment manager.

PPPPPPPP. c. Enforcement: In the event it is determined that during the life of an investment vehicle there is a violation of the above stated terms, Staff shall be precluded from making an investment in a follow on fund with the investment manager. If Staff determines it appropriate, based on all the facts and circumstances, Staff may recommend the investment in the follow on fund to the Committee, which will determine whether to invest in the follow on fund consistent with its fiduciary duty. The follow on fund would be required to enter into the written agreement in subsection b above.

QQQQQQQ.Management of Partnership Investments RRRRRRRR.

SSSSSSS. The Program shall be continually refined to obtain the most effective mix of investments.

The Program shall invest in traditional partnership investments, and, as appropriate, funds employing other structures.

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UUUUUUU.Management of Direct Investments

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WWWWWWW. The Program shall utilize two types of direct investments: <u>Co Investments</u> and <u>Independently Sourced Investments</u>. Co investments and independently sourced investments may be managed through partnerships, separate account structures, or other formation structures, e.g. limited liability companies (LLCs) where the <u>general partner(s)</u> or fund manager(s) have expertise in the specified mandates and in related areas material to the success of each investment vehicle or strategy.

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YYYYYYY.Co Investments are direct investments by CalPERS together with an existing general partner or fund manager. CalPERS may invest in the same security as or a different security in the same asset class than the general partner; for example, preferred versus common stock or voting versus non voting class of shares. The investment may be with a partnership or investment vehicle in which CalPERS has invested or it may be from another partnership or investment vehicle sponsored by the same general partner.

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AAAAAAAAA.Independently Sourced Investments come to CalPERS through contacts other than the general partners with which CalPERS has invested. CalPERS shall avoid competing directly with its general partners in this segment where applicable.

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CCCCCCC. Direct investments will be considered after the necessary staff and consultant resources are in place and the Committee approval is obtained.

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EEEEEEEE. Management of Strategic Investment Vehicles

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GGGGGGGG. Strategic investment vehicles shall include innovative structures that provide a cost effective means to access investment opportunities, exploit CalPERS strengths, and achieve the maximum risk adjusted rates of return. Strategic investment vehicles may be either partnership or direct investments.

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HIIIIIII. Transaction Processes

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KKKKKKKKK.The Program shall process transactions efficiently. To accomplish this, Staff shall serve as the point of contact regarding all transactions flowing through CalPERS. Staff shall direct and coordinate the activities of the Program's External Resource(s). Staff will then be able to monitor and control the process and ensure that <u>due diligence</u> standards are maintained. Additionally, Staff will play a significant role in marketing the Program.

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MMMMMMMM.For partnerships, the policy goal will be to maintain timely responses to proposals and to process them efficiently and effectively. Partnerships in which CalPERS is already an investor shall be subject to an expedited due diligence process that combines the on going monitoring assessment with an update of the original due diligence. New partnerships that warrant consideration shall face a full due diligence review. Section VIII.A contains an outline of the process for evaluating partnerships.

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OOOOOOO.Direct investments shall also be addressed in a timely fashion.

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QQQQQQQ. 4. Strategic investment vehicles shall also be processed in a timely manner. Underlying investments shall be evaluated relative to partnership or direct investment due diligence criteria as appropriate.

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SSSSSSSS Quality Control Processes

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Hidrage risk.
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WWWWWWWWW.Monitor Process Staff monitors transaction processing to insure timely decision
making and an effective process. XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
YYYYYYYY.Monitor Portfolio Performance Actual returns are compared to the Program's
performance objectives, and to the expected return for the investment.
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
processes:
BBBBBBBBBB.
CCCCCCCC. Assess the level of diversification in the portfolio on a continual basis, including the
level of diversification across investment style, geographic distribution, industry concentrations,
and across other ranges as appropriate.
DDDDDDDDDD.
EEEEEEEEE.Track and monitor due diligence activity and review the External Resource's due
diligence. Monitor External Resource's activities and internal policies and procedures.
FFFFFFFF.
GGGGGGGGGG.Identify problems early and take corrective action quickly.
ННИННИННИ.
HHHHHI.Risk Parameters
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KKKKKKKKKKKFinancial Risk: Infrastructure investments may employ substantial leverage
(borrowing), which may result in significant financial risk.
LLLLLLLL.
MMMMMMMMMMLiquidity Risk: Infrastructure investments may lack liquidity and may have time
horizons greater than 10 years. Secondary markets for such investments can be very limited.
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OOOOOOOO.Credit Risk: Credit markets experience volatility and changes in these markets may
have a significant impact on the cost of financing infrastructure investments and overall
transaction execution.
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QQQQQQQQQ.Political and Public Risk: Infrastructure investments may be associated with political
approval and public acceptance of projects.
RRRRRRRRR.
SSSSSSSS.Labor Risk: Risks associated with public sector outsourcing, or labor relations may affect
investment opportunities in infrastructure.
TTTTTTTT.
UUUUUUUUU.Regulatory Risk: Changes in regulatory conditions may affect investment returns.
VVVVVVVVV .
WWWWWWWWWW.Country Risk: Political, economic, and currency risks are associated with
investing in all countries.
XXXXXXXXXXX.
YYYYYYYYYYStructural Risk: CalPERS negotiates its agreements to include certain fundamental
rights, protections and remedies. These basic protections include advisory committee
participation, specific termination provisions in partnership transactions, anti-dilutions, put and
call Options, voting rights for material events, and other covenants and governance provisions in
the case of direct investments.
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AAAAAAAAAAAAA.Valuation Risk: Partnerships shall be evaluated to determine if the general partner
employs an appropriate valuation discipline. For direct investments, the Staff shall review
valuations to determine if they are reasonable.
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UUUUUUUUU. The Program shall employ a quality control process, which may include both

Staff and External Resource(s) to monitor Program efficiency, track investment performance, and

CCCCCCCCC.Market Risk: The infrastructure market continues to develop globally and market opportunities can change depending on many variables such as market supply and demand. DDDDDDDDDDD. EEEEEEEE.Environmental and Climate Risk: Long term investment returns may be impacted by risks and opportunities related to the environment and climate change. GGGGGGGGGG. Hazardous Materials: Implementation of the Program shall comply at all times with CalPERS Hazardous Materials policy. HHHHHHHHHHH. ШШШШ. JJJJJJJJJJJ. K. - Guidelines for Evaluating Proposals KKKKKKKKKKKK. LLLLLLLLL. Proposed partnership, direct investment, and strategic investment vehicle opportunities shall be evaluated relative to their fit with the Program Strategy. MMMMMMMMMM. investments, respectively. Strategic investment vehicles shall be evaluated according to the underlying structure of the investment, which may include either partnership or direct investments. *000000000000*. **Renewable Energy and Sustainability** RRRRRRRRRRR. CalPERS encourages the prudent use of sustainable development methods and operational practices when reasonable and economically feasible. Consideration shall be given to the use of renewable energy technologies, recycled and renewable building materials, air and water conservation technologies and practices, and efficient waste, recycle and disposal technology and practices. Consideration shall also be given to the environmental sustainability of investments including but not limited to energy efficiency, fuel economy, alternative energy generation and distribution impacts. SSSSSSSSSSS. TTTTTTTTTT.PERMISSIBLE INVESTMENTS UUUUUUUUUU. VVVVVVVVVVVVVV. CalPERS shall consider any appropriate investment opportunity with the potential to meet or exceed the Program's performance objectives. Investments shall generally fall within the categories defined below. WWWWWWWWWW. XXXXXXXXXXXXInfrastructure Sectors YYYYYYYYYYY. - CalPERS shall consider investment opportunities within, but not limited to, the 7777777777. following infrastructure sectors: AAAAAAAAAAA. BBBBBBBBBBB.Transportation assets (e.g. bridges, roadways, railways, transit and tunnels); CCCCCCCCCCC. DDDDDDDDDDDDD.Ports (e.g. airports, seaports, barges and terminals); EEEEEEEEEE. FFFFFFFFF. Utilities (e.g. clean energy, pipelines, storage and distribution and power transmission); GGGGGGGGGGG. HHHHHHHHHHHHWater (e.g. water treatment, distribution, storage, desalination and other water related investment areas); шшшш. JJJJJJJJJJ. Energy resources (e.g. hydrocarbons, gas, geothermal, wind generated, water generated, and nuclear; transmission; and distribution); KKKKKKKKKKKK. LLLLLLLLLL.Communications (e.g. - broadcast and wireless towers, eable systems and satellite networks); MMMMMMMMMMM.

NNNNNNNNNNNNNN.Social Infrastructure (e.g. educational facilities, healthcare facilities and judicial buildings); and, 0000000000000. PPPPPPPPP.Other infrastructure investments that are aligned with CalPERS strategic objectives. 0000000000000. RRRRRRRRRRRRR.Structures and Investment Vehicles SSSSSSSSSSSS. TTTTTTTTTT. The Program shall be implemented primarily through direct equity investments in infrastructure (either 100% owned or through partnerships, funds, joint ventures or other coinvestment vehicles). Equity (privately held or publicly traded), leveraged equity, and debt instruments with equity like features, are also appropriate structures for investments. UUUUUUUUUUUU. VVVVVVVVVV. CalPERS shall consider a number of different vehicles for investments including, but not limited to, the following: WWWWWWWWWW. XXXXXXXXXXXXXXX.Equity Investments in 100% owned assets; YYYYYYYYYYYY. ZZZZZZZZZZZZZ.Equity joint ventures or other co investment vehicles; AAAAAAAAAAAAA. BBBBBBBBBBBB.Indirect equity investments in commingled funds; private or public corporations; limited partnerships; or other pooled investment vehicles; DDDDDDDDDDDD.Private placements of equity or debt in public or private infrastructure operating companies; EEEEEEEEEEE. FFFFFFFFFIFIANVEStment grade as well as lower or unrated tranches of pre existing securitized or lower structured debt instruments, such as mezzanine or other debt with equity like features; GGGGGGGGGGG. HHHHHHHHHHHHLLeveraged equity investments; JJJJJJJJJJJJJListed infrastructure companies, Exchange Trade Funds (ETF); KKKKKKKKKKKKK. LLLLLLLLL.Futures or swaps on listed infrastructure indices on a fully collateralized basis; and, MMMMMMMMMMM. Inflation Linked Asset Class policy in Section V.B. 00000000000000. PPPPPPPPPPPPPPPSelection Considerations 00000000000000. RRRRRRRRRRR. In choosing specific investment vehicles for the Program, consideration shall be given, but not limited to the following: SSSSSSSSSSSS. TTTTTTTTTTT.Proposed investment strategy; UUUUUUUUUUUU. VVVVVVVVVVVVV.Expected risk and return attributes of vehicles; WWWWWWWWWW. XXXXXXXXXXXXX.Potential diversification benefits; YYYYYYYYYYYY. ZZZZZZZZZZZZZZ.Investment time horizon; AAAAAAAAAAAAAA. CCCCCCCCCCCCC. DDDDDDDDDDDDDD.Monitoring costs and feasibility; EEEEEEEEEEE.

GGGGGGGGGGG.
HHHHHHHHHHHHHOther incremental costs;
JJJJJJJJJJJ.Fee arrangements;
KKKKKKKKKKKKK.
LLLLLLLLLLL.Co investment by management firm or partner;
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NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
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PPPPPPPPPPPPP.Governance and control;
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RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR
SSSSSSSSSSS.
TTTTTTTTTTT.Performance track record.
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VVVVVVVVVVVVVVV. D. Diversification by Geography
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jurisdictions. Investments in both domestic and international markets are permitted with the
relative proportion of each type at a given time to be determined based on prevailing market
conditions. Regional diversification within a particular country shall also be considered when
such diversification contributes measurably to risk mitigation. Section VI.B.3 provides the
Regional Allocations for the infrastructure investments.
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TITITITITITITITITE. E. Diversification by Revenue and Strategy
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revenue is dominant in the portfolio of the Program.
CCCCCCCCCCCCC.
DDDDDDDDDDDDD. The SIO ILAC will review the investments in infrastructure assets and
vehicles regularly and identify adjustments when necessary to ensure satisfactory diversification
by geography and revenue sources. Adjustments to diversification in the Program shall be
implemented on an opportunistic basis over a reasonable time frame (normally within a three year
period), and with ample consideration given to preserving the investment returns to CalPERS.
Section VI.B.1 provides the Portfolio Allocation for infrastructure investments.
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HHHHHHHHHHHH. The size of portfolio investments shall depend on the opportunities
available to CalPERS, with neither small nor large investments being dominant in the Program.
Furthermore, investment size shall be appropriate to the projected risk versus return level of the
investments. However, in order to have some effect on the infrastructure portfolio and to
maximize relationships, a select group of investors may be utilized to invest a significant portion
of the infrastructure portfolio.
JJJJJJJJJJJJJ. G. Investment Holding Period and Dispositions
KKKKKKKKKKKKKK.
LLLLLLLLLLL. The target holding period for infrastructure assets shall generally be for long-
term investment (10 years or more). However, disposition of individual investments may be
triggered by an opportunity to capture a return in excess of the targeted return, or by a revised
investment strategy resulting from changes in markets for infrastructure assets or changes in
CalPERS financial objectives. MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM
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PPPPPPPPPPP. Leverage is permissible in the Program to enhance investment returns. Infrastructure assets are able to attract and service significant debt levels due to stable inflation linked cash flows, long term concessions and off take agreements. The program shall be managed to ensure that leverage is appropriate and that it is accretive to returns considering leverage risk. Staff will consider the debt rating, debt service ratios, leverage ratios, capital ratios and stability of eash flow in addition to the debt level (leverage) to determine if debt is excessive. The Program, measured periodically and across all investments, will carry an average debt rating of BB+ by Standard and Poor's, Ba1 by Moody's or better. Where debt ratings from Standard and Poor's or Moody's are not available for individual Program investments, the amount of leverage applied to such investment shall, on an unrated basis, approximate the targeted average rating of the Program. RRRRRRRRRRRRRRRR. Credit Rating TTTTTTTTTTTT. For investments in debt securities, the Program will carry a minimum credit rating of BB+ by Standard and Poor's, Ba1 by Moody's or the approximate unrated equivalent at the time of investment. UUUUUUUUUUUUUUU. VIII. SPECIFIC CONSIDERATIONS WWWWWWWWWWWWW. XXXXXXXXXXXXXXXX.Partnership and Fund Investment Guidelines YYYYYYYYYYYYYY. **ZZZZZZZZZZZZZZ**.Minimum Requirements and Investment Styles AAAAAAAAAAAAAAAA. BBBBBBBBBBBBBBB. The principals of the investment vehicle shall demonstrate relevant experience in or directly applicable to the market in which they propose to work or the strategy they wish to DDDDDDDDDDDDDD. The proposed strategy and business plan shall be set forth in sufficient detail to permit substantive and meaningful review of the opportunity, verification of the investment concept and risk factors, and assurance that the investment opportunity can be realized and produce the required return. EEEEEEEEEEEE. FFFFFFFFFFF.The risk and reward trade off in the particular market that is addressed by a partnership or fund proposal shall be attractive, based on reasonable assumptions. GGGGGGGGGGGGGG. HHHHHHHHHHHHHHHHEvaluation Criteria JJJJJJJJJJJJJ. Primary emphasis will be on the quality and experience of the general partners in a partnership investment. Additional factors may include, but are not limited to, the following as appropriate: LLLLLLLLLLEit with the Program Strategy and within the Program. overall partnership or fund governance, management of the partnership or fund, including controls and reporting systems. Relationship with limited partners. QQQQQQQQQQQQQQQ. RRRRRRRRRRRRRRR. Potential for co-investments. TTTTTTTTTTTT.e. Creativity of the general partners to implement a unique strategy that is not competitive with existing investments. UUUUUUUUUUUUUUU.

Reasonable ratio of investors to general partners and reasonable ratio of committed capital to general partners. WWWWWWWWWWWW. Appropriateness of terms and conditions and alignment of interests with limited partners. YYYYYYYYYYYYYY. ZZZZZZZZZZZZZZDue Diligence AAAAAAAAAAAAAAAA. A due diligence review by Staff and External Resources selected for BBBBBBBBBBBBBBBBBB. reviewing a transaction shall include the following, when applicable: DDDDDDDDDDDDDDDDD.Review and analysis of all pertinent offering documents including but not limited to offering memorandums, subscription agreements, private placement memorandums and operative investment agreements. EEEEEEEEEEEEEE. FFFFFFFFFFFC.Consideration of potential conflicts of interest, if any, posed by the proposed investment and prior investments and activities of the principals. GGGGGGGGGGGGGG. HHHHHHHHHHHHHHHH.Review and analysis of the investment concept, including entry and exit strategies and terms including fees, principal participation, and structure. шшшшш. JJJJJJJJJJJJJJJ.Review and analysis of the fit within the Program, including fit with the Strategy, other constraints and guidelines, and compliance with applicable investment policies. Review of background and reference of principals and review LLLLLLLLLLLLLL. and analysis of track record including performance of prior and current investments. MMMMMMMMMMMMMM. Investigation of special terms and side letter agreements with past or present investors. Analysis of the competition between a given proposal and an existing preferential relationship or alternative asset, which may include, but is not limited to, a review of the following: the size of the industry, the segment of the industry, and the deal flow for both the preferential relationship and the proposed investment. Review of any lawsuits, litigation involving the general RRRRRRRRRRRRRRRRRRR. h. partner, its principals, employees and prior funds. TTTTTTTTTTTTTTTLegal Constraints UUUUUUUUUUUUUUUU. many areas of legal concern, including but not limited to: WWWWWWWWWWWWW. YYYYYYYYYYYYYYY. AAAAAAAAAAAAAAAAAA. must take all relevant state and federal regulatory requirements into consideration. EEEEEEEEEEEE. has the potential for attractive risk-adjusted returns which is not otherwise prohibited by CalPERS. GGGGGGGGGGGGGG.

LLLLLLLLLLLLLLLDirect Investment Guidelines

PPPPPPPPPPPPPPPP.Management shall have compiled relevant business and management experience.

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RRRRRRRRRRRRRRRRRRRR.The entity in which the investment is made shall be appropriately capitalized in the relevant circumstances.

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YYYYYYYYYYYYYYYY.The integrity of the general partner, its employees, and other investors.

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CCCCCCCCCCCCC. The growth prospects of the company and its industry in light of existing and anticipated economic conditions.

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EEEEEEEEEEEE.The underlying stability of the company's business, earnings, financial and operating controls, reporting mechanisms and the quality of the corporate governance.

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IIIIIIIIIIIIIIII. The quality, stability and experience of the management team, the Board of Directors, and other investors, including the quality of their interaction.

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QQQQQQQQQQQQQQQQ. The specific objectives and goals of the company and its management team including the strategy to be employed to achieve the aforementioned objectives and goals. Management and investors should have a well thought out plan for creating and realizing value from the company.

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SSSSSSSSSSSSSSS. The controlling shareowner(s) and other institutional investors.

investors and any controlling shareowners. LULLULLULLULLULLULLULLULLULLULLULLULLU	TTTTTTTTTTTTTTTTTTTTTTTTTTTTT.The relationship with the management team, the Board of Directors, other
WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW	investors and any controlling shareowners.
WXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	UUUUUUUUUUUUUUUUU .
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	WVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVV
YYYYYYYYYYYYY TITITITITITITITITITITITIT	WWWWWWWWWWWWWW .
### Page 12 For co investments, Staff, and External Resources if utilized, will rely heavily on the work of the general partner sponsoring the transactions while conducing its own due diligence lade placeholdy sourced investments will require a much more in depth due diligence review because these investments do not come to CalPERS through one of the existing general partners in the portfolio. AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
heavily-on the work of the general partner sponsoring the transactions while conducting its own due diligence. Independently sourced investments will require a much more in depth due diligence review because these investments do not come to CalPERS through one of the existing general partners in the portfolio. AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	YYYYYYYYYYYYYYYY.
due diligence. Independently sourced investments will require a much more in depth due diligence review because these investments do not come to CalPERS through one of the existing general partners in the portfolio. AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ
review because those investments do not come to CalPERS through one of the existing general partners in the portfolio. AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	heavily on the work of the general partner sponsoring the transactions while conducting its own
partners in the portfolio AAAAAAAAAAAAAAAAAA BBBBBBBBBBBBBBBBBB	due diligence. Independently sourced investments will require a much more in depth due diligence
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	review because these investments do not come to CalPERS through one of the existing general
BBBBBBBBBBBBBBBBBBBBB. A due diligence review by Staff and the External Resources if selected for reviewing a transaction shall include the following, when applicable: CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	partners in the portfolio.
for reviewing a transaction shall include the following, when applicable: CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	AAAAAAAAAAAAAAAAAA.
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCDDDDDDD	BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB
DDDDDDDDDDDDDDDDDDDDD.Review of whether the proposed investment falls within the Strategy, constraints and guidelines, and if it complies with applicable investment policies. EEEEEEEEEEEEEEEEEEEE ITTTTTTTTTTTTTT	for reviewing a transaction shall include the following, when applicable:
constraints and guidelines, and if it complies with applicable investment policies. EEFEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE	ccccccccccccc.
EFFERENCE EFFERENCE HTHTFTFTFTTTTTTFTR. Review and analysis of all pertinent documents, including offering memorandums, research reports, annual and quarterly reports, SEC reports, proxy statements and news articles regarding the company, management and industry. GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	DDDDDDDDDDDDDDDDDDDDDD.Review of whether the proposed investment falls within the Strategy
FFFFFFFFFFFFFFFFFFReview and analysis of all pertinent documents, including offering memorandums, research reports, annual and quarterly reports, SEC reports, proxy statements and news articles regarding the company, management and industry. GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	constraints and guidelines, and if it complies with applicable investment policies.
memorandums, research reports, annual and quarterly reports, SEC reports, proxy statements and news articles regarding the company, management and industry. GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	EEEEEEEEEEEEEE.
news articles regarding the company, management and industry. GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF
news articles regarding the company, management and industry. GGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	· · · · · · · · · · · · · · · · · · ·
HIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHI	
HIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHIHI	
and any controlling shareowners. IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
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position, and present financial condition, including examination of auditor reports and possible interview of the auditor. KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK	<u>-</u>
position, and present financial condition, including examination of auditor reports and possible interview of the auditor. KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK	JJJJJJJJJJJJJJJJJReview of the company's historical and projected financial operating results, market
interview of the auditor. KKKKKKKKKKKKKKKKKKKKK LLLLLLLLLLLLL	
LLLLLLLLLLLLLLLLLLLLLLLReview and analysis of any contingent liabilities, including potential liabilities related to anticipated legal action, environmental issues, under funded pensions, taxes and insurance issues. MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM	
liabilities related to anticipated legal action, environmental issues, under funded pensions, taxes and insurance issues. MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM	KKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKKK
liabilities related to anticipated legal action, environmental issues, under funded pensions, taxes and insurance issues. MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM	LLLLLLLLLLLLLLReview and analysis of any contingent liabilities, including potentia
MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM	liabilities related to anticipated legal action, environmental issues, under funded pensions, taxes
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN	and insurance issues.
anti takeover provisions, labor contracts, and as appropriate, consultation with relevant labor representatives. OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO	MMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMMM
representatives. OOOOOOOOOOOOOOOOOO. PPPPPPPPPPPPPPP	NNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN
OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO	anti takeover provisions, labor contracts, and as appropriate, consultation with relevant labor
PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP	representatives.
and, when advisable, competitors. QQQQQQQQQQQQQQQQQQ. RRRRRRRRRRRRRRR	000000000000000000000000000000000000000
and, when advisable, competitors. QQQQQQQQQQQQQQQQQQ. RRRRRRRRRRRRRRR	PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP
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RRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRRR	•
investors. SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	
SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	
TTTTTTTTTTTTTTTTReview and analysis by counsel of all relevant state and federal regulations and regulatory reports, examinations and ratings regarding the company and its business sector. UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	
and regulatory reports, examinations and ratings regarding the company and its business sector. UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS
and regulatory reports, examinations and ratings regarding the company and its business sector. UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	TTTTTTTTTTTTTTTT. Review and analysis by counsel of all relevant state and federal regulations
UUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUUU	
VVVVVVVVVVVVVVVVVVVVVVV.Conduct visits to the company's principal facilities and corporate headquarters and interviews with board members, senior management and controlling shareowners. WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW	
headquarters and interviews with board members, senior management and controlling shareowners. WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW	
shareowners. WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW	
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YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY	
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many mean of legal concern, metaling out not million to.	many areas of legal concern, including but not limited to:

AAAAAAAAAAAAAAAAAAAA. DDDDDDDDDDDDDDDDDDDDD.Licensing and registration requirements; and, EEEEEEEEEEEEEEE. FFFFFFFFFFFFFFFRegulatory compliance, that is, partnerships and proposed investments must take all relevant state and federal regulatory requirements into consideration. GGGGGGGGGGGGGGGG. HHHHHHHHHHHHHHHHHHHHH.Other Parameters JJJJJJJJJJJJJJJJJJJJJJ.Method of Participation: CalPERS generally participates as a preferred or common stockholder or as a senior or subordinated debt investor with common stock participation. LLLLLLLLLLLLLLLLTypes of Allowable Investments: Any appropriate investment opportunity which has the potential for attractive risk adjusted returns and which is not otherwise prohibited by CalPERS. other terms and conditions are negotiated as appropriate and when possible. investment opportunity containing as part of its name or title any reference to CalPERS and immediately inform the proposer that inclusion of such a reference or use is inappropriate and unacceptable to CalPERS and require that it be removed. RRRRRRRRRRRRRRRRRRRRR.Corporate Governance 2222222222222222222 TTTTTTTTTTTTTTTT. Consistent with CalPERS policies on Corporate Governance, UUUUUUUUUUUUUUUUUUUUUUUUUUUUUU any class of securities in which it might invest. Where applicable, CalPERS shall execute all proxies and voting instructions in a manner consistent with CalPERS Statement of Investment Policy for Global Proxy Voting. When appropriate, CalPERS may wish to participate as part of a voting trust agreement under which a third party (e.g., a lead investor) retains its proxy to vote CalPERS interests. WWWWWWWWWWWWWWWW. seeking representation on the board of directors of a corporation in which it invests, in a manner consistent with CalPERS Statement of Investment Policy for Representation on Corporate Boards of Directors. CalPERS may wish to retain the right to have an independent representative or representatives of CalPERS appointed to a portfolio company's Board of Directors. Furthermore, the fund should allow for the possibility to retain the right to have such representatives participate in select committees of such Board of Directors (e.g., Audit Committee, Executive Committee or Compensation Committee). YYYYYYYYYYYYYYYYY. 222222222222222222. (3) Board of Directors Accessibility: CalPERS should strive to obtain the right to attend, as an observer, a portfolio company's Board of Directors meeting. Directors should be accountable to CalPERS as a shareowner. To ensure this accountability, directors must be accessible to CalPERS inquiries concerning key decisions affecting the company's strategic direction. ^ should follow corporate governance best practices consistent with CalPERS Global Principles of Accountable Corporate Governance. CalPERS should strive to obtain agreements as to the composition of a Board of Directors, including guidelines on the number of outside Directors and

the composition of key committees.

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DDDDDDDDDDDDDDDDDDDD. (5) Special Voting Rights: With the exception of Global
    Equity portfolio companies, CalPERS should, if desirable, strive to obtain special class voting
    rights with respect to specific corporate governance matters such as proposals deemed contrary to
    CalPERS interests, for example, as in the case of hostile takeovers.
EEEEEEEEEEEEEEEE.
CALCULATIONS AND COMPUTATIONS
HHHHHHHHHHHHHHHHHHHHHHHR.Reporting
шшшшшшш
JJJJJJJJJJJJJJJJJJJJJJStaff shall require periodic reports from investment partners to facilitate monitoring
    that are appropriate for the specific transaction.
LLLLLLLLLLLLLLL.2.
                        Staff shall monitor individual partnerships, direct investments
    and the portfolio as a whole. Monitoring includes diversification across alternative investment
    types and programs to assure an appropriate mix.
Performance Reporting
<del>QQQQQQQQQQQQQQQQQQQQQ</del>.
RRRRRRRRRRRRRRRRRRRRRR. Objectives established by the partnership or the principals managing
    the investment (actual financial performance as compared to original plan);
TTTTTTTTTTTTTTTTTTTRisk undertaken:
UUUUUUUUUUUUUUUUUUUUUUUUUUUUUU
XXXXXXXXXXXXXXXXXXXXX.The short term monitoring benchmark for partnerships in the first
    four years of their term; and,
YYYYYYYYYYYYYYYYYY.
ZZZZZZZZZZZZZZZZZZZZZZZZZ. The long term performance objective, with appropriate interpretation if
    applied to the short term.
AAAAAAAAAAAAAAAAAAAAAAAAAAA.
<del>EEEEEEEEEEEEEEEEEEEEEEEEEE</del>.
the following areas:
ННННННННННННННННННННН.Actual financial performance of a company compared to the
    business plan and strategy;
JJJJJJJJJJJJJJJJJJJJ.Risk undertaken; and,
LLLLLLLLLLLLLLLLLL. The performance of the company against its pro forma operating
    results, its industry and the total Program portfolio.
according to original plan and partnership and direct investment criteria as appropriate.
Committee Reports
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TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	ed to the
Committee. These reports shall include reviews of investments and their performance.	
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VVVVVVVVVVVVVVVVVVV .	
WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW	nittee:
— June 16, 2008	
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	August
18, 2008	_
YYYYYYYYYYYYYYYYYYY. Revised by the Policy Subcommittee:	
November 16, 2009	
ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ	
December 14, 2009	
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	_
April 19, 2010	
BBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBBB	May 17,
2010	•

FORESTLAND PROGRAM DDDDDDDDDDDDDDDDDDDDDD. May 17, 2010 eeleeeleeeleeeleeeleee. **PURPOSE** This attachment to the Inflation Linked Asset Class Policy sets forth the investment policy ("Policy") for the Forestland Program ("Program"). ННИННИННИННИННИННИННИННИН. HIHHHHHHHHHIII.STRATEGIC OBJECTIVE JJJJJJJJJJJJJJJJJJJ. The Forestland Program shall be managed to accomplish the following: Preserve investment capital. return for CalPERS as a total return investor, including the following components: operations with the generation of cash flow secondary to producing long term total returns; and biological growth and employing active best management techniques and practices. TTTTTTTTTTTTTTTTTTTT.Provide a hedge against inflation. UUUUUUUUUUUUUUUUUUUUUU. RESPONSIBILITIES the Inflation Linked Asset Class policy, section III. YYYYYYYYYYYYYYYYYYYYYYYYYYYYYYY IV. PERFORMANCE OBJECTIVES term objectives, net of fees. AAAAAAAAAAAAAAAAAAAAAAAAAAA (inflation plus a premium of 5%, inflation measured by the United States Bureau of Labor Statistics Consumer Price Index for All Urban Consumers CPI U). DDDDDDDDDDDDDDDDDDDDDDD.Achieving real rates of return from individual assets held in the Portfolio that exceed a target rate that is adjusted for risk depending on the nature of the investment and the country and region in which it is located with the overall target stated in paragraph A above as the benchmark. eccepeeeeeeeeeeeeeee. FFFFFFFFFFFFFFFFFINVESTMENT APPROACHES AND PARAMETERS Sustainability Considerations HHHHHHHHHHHH. Maximizing the economic benefits to CalPERS is the primary objective of the Portfolio. The management of each investment shall incorporate sound principles for environmental management and social responsibility with full consideration of impacts on biodiversity, water and air quality, soil conservation and local communities especially indigenous groups. Respecting the desire to maintain and enhance environmental quality and the social and economic benefits accruing to local communities, CalPERS shall strive to use the best and highest forest management standards commercially and economically feasible while meeting or exceeding the performance objective. To this end, investment opportunities involving forests that have achieved independent environmental or forest certification will be sought. For assets not yet certified to such a standard, proponents and managers of the properties will be encouraged to seek certification and commit to a fixed time table for its realization. In such cases, due diligence procedures will include benchmarking management practices against an

international or national standard for forest management appropriate for the region in which the asset is located.]]]]]]]]]]]] Non-conventional Forestland Investments markets for forestlands involving non-traditional sources of revenue such as <u>Carbon</u> Sequestration and the production of feed stock for bio fuels from both woody (e.g. traditional timber species, bamboo) and non woody (e.g. switchgrass) vegetation are permitted. These investments will be subjected to the same performance requirements as traditional forestland investments and will be scrutinized rigorously prior to committing funds and monitored closely to ensure acceptable performance. Investment Objectives and Criteria QQQQQQQQQQQQQQQQQQQQQQQQQQQQQQ... Implementation of this Program shall comply at all times with the applicable CalPERS investment policies. 1. Investment quality UUUUUUUUUUUUUUUUUUUUUUUU. Forestland tracts shall be comparable in a. quality to those held by other institutional investors or the forest products industry to enhance an exit strategy. The following parameters shall be used as a guide when relevant to assess comparability to investment grade forestland assets for possible inclusion in the Portfolio: VVVVVVVVVVVVVVVVVVVV. WWWWWWWWWWWWWWWWWWWW.1. Soils soil structure and fertility should be as good or better on average than comparable industrial tracts. Rainfall YYYYYYYYYYYYYYYYYYYYYY. the annual average and distribution of rainfall should be similar to that for observed on nearby industrial tracts. 7777777777777777777777777777777. vigorous healthy trees and species that are matched to the sites with no backlog of unplanted land. CCCCCCCCCCCCCCCCCCCCCC.Genetic stock for plantations, the provenance of the planted trees should be appropriate for the sites and have shown good growth and form characteristics. DDDDDDDDDDDDDDDDDDDDDDDDD. applied by the current owner and proposed by the candidate investment manager/property manager should be proven as appropriate for the species, sites, and target markets. There should be verifiable evidence that the prescriptions have been implemented as planned. and proven protection capacity should exist for the asset and neighboring lands. ИНИНИННИНИННИНИННИНИННИН HHHHHHHHHHH.Biotic risks there should be little or no evidence or history of problems with insect, or fungal, pathogens or harmful animals. 」」」」」」」」」」」」」」 or history of problems from wind throw, flooding, snow press, and other abiotic risks. should be located in proximity (economically viable) to diverse and competitive markets for the full range of products expected to be generated by the forest.

and public transportation network (roads, rail, and waterways) should be well developed and well maintained as warranted. disruptions for manufacturing phases relevant to the investment. title with no evidence of outstanding land claims, whether the intention is to buy the land or use some other form of contractual arrangement (lease, joint venture, and license). TTTTTTTTTTTTTTTTTTTT.Liabilities there should be no outstanding material regulatory (environmental, silvicultural, protected areas, taxation, other) liabilities associated with the property. **Diversification** reduce risk. The Portfolio shall be managed to maintain a degree of diversification with regard to geography, forest cover and revenue sources including emerging product markets. YYYYYYYYYYYYYYYYYYYYYYY. 7777777777777777777777777. a. Diversification by Geography ΑΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛΛ. The Portfolio shall include investments in a variety of jurisdictions. Investments in both domestic and international markets are permitted with the relative proportion of each type at a given time to be determined based on prevailing market conditions. Regional diversification within a particular country shall also be considered when such diversification contributes measurably to risk mitigation. EEEEEEEEEEEEEEEEEEEEEEEEEEEEE. The Portfolio shall include assets that are diversified with respect to forest cover including a variety of species in both the softwood and hardwood species groups. Diversification can also be enhanced by investments in non traditional woody and nonwoody species. Diversification by forest cover shall be consistent with the Portfolio requirements for financial performance and risk mitigation. HHHHHHHHHHHHHHHHHHHHHHHHHDiversification by Revenue Source]]]]]]]]]]]]]]] The Portfolio shall be diversified so that no one source of revenue (bio-fuel, carbon sequestration, pulpwood, sawtimber, specialty hardwood, non-timber) dominates the Portfolio. assets regularly and order adjustments when necessary to ensure satisfactory diversification by geography, forest cover and revenue sources. Adjustments to diversification in the Portfolio shall be implemented on an opportunistic basis over a reasonable time frame (normally within a threeyear period), and with ample consideration given to preserving the investment returns to CalPERS. Investment Asset Size Investments in the Portfolio shall have a range of sizes to both enhance liquidity of the Portfolio and enable participation in larger opportunities while maintaining significant control over management. An individual investment shall be one or more parcels of forestland with unity of title, use, and contiguity. Non contiguous parcels of land may be considered an individual investment if there is unity of operation.

RRRRRRRRRRRRRRRRRRRRRRRRRRR. 4. **Investment Holding Period/Dispositions** TTTTTTTTTTTTTTTTTTTT. The target holding period for forestland assets shall generally be for long term investment (10 years or more). However, disposition of individual investments may be triggered by an opportunity to capture a return in excess of the targeted return, or by a revised investment strategy resulting from changes in markets for forest products or changes in CalPERS financial objectives. UUUUUUUUUUUUUUUUUUUUUUU. Leverage 40%. The loan to value ratio limit may be extended to 50% for up to three years with Chief Investment Officer approval and up to one year with SIO-ILAC approval in order to permit a gradual decline in debt on acquisitions and to maintain a flexible and optimal harvesting scheduled. Staff will report quarterly to the Committee on the loan to value ratio any time that the leverage exceeds 40%. In any use of leverage, the debt service payments should not drive harvesting activities. YYYYYYYYYYYYYYYYYYYYYYYYYYYY. AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA The investment manager shall be responsible for developing operating management plans, strategic plans and budgets, and on-site supervision of each forestland holding. Individual assets must be physically inspected at least once a year. Emphasis shall be placed on active management to capitalize on opportunities that add value. conducted, under the supervision of the investment manager, by firms with an established presence in the local forestland markets and demonstrated expertise in optimizing forestland property performance. EEEEEEEEEEEEEEEEEEEEEEEEEEEEE. Management shall comply with all laws and regulations applicable to the jurisdictions where the forestland assets are located. ННИНИННИННИННИННИННИННИННИН. d. Where prudent and economically practical, revenue sources from non timber resources such as hunting, fishing, gathering, and recreation shall be permitted. A full investigation of the legal liabilities associated with both destructive and non destructive use of non timber forest resources, whether for fees or not, shall be completed prior to permitting such use. — Contractual Arrangements LLLLLLLLLLLLLLLLLLLLLLLLLLLLequity ownership of forestland assets is the preferred method of investment. However, other contractual arrangements such as long term lease, joint venture, and forest licenses are permitted. All types of contractual arrangements shall include exclusive ownership or use rights for the land, timber and non-timber resources, water, sequestered carbon, and minerals whenever possible. land development and speculation shall be prohibited. Investments that involve forced labor, the illegal or harmful use of child labor, violation of community or indigenous peoples' legal or <u>usufruct_rights</u>, or violation of laws or regulations pertaining to threatened or endangered species are prohibited.

QQQQQQQQQQQQQQQQQQQQQQQQQQQQQQ.-TTTTTTTTTTTT.D. Asset Allocation Portfolio is governed by the Inflation linked Asset Class policy, section V. of the ranges prescribed by the Policy. In these instances, adjustments to correct the actual percentage in order for it to comply with the Policy allocation range shall be implemented on an opportunistic basis over a reasonable time frame (within a three year period with CIO approval and otherwise within one year), and with full consideration given to preserving the investment returns to CalPERS. Staff will report quarterly to the Committee any time that the actual forestland investments are outside the allocation range. YYYYYYYYYYYYYYYYYYYYYYYYYY. *7777777777777777777*.E. Risk Management AAAAAAAAAAAAAAAAAAAAAAAAAA procedures during the pre investment due diligence, investment monitoring, and exit due diligence stages of investments. The purpose of these risk management exercises is to identify the full range of risks to the investment, rank the risks according to potential impact on the investment and then rigorously test the proponent's projections and responses to questioning relating to the identified risks to ensure their logic and analyses are sound. DDDDDDDDDDDDDDDDDDDDDDDDDDDDD. Due diligence prior to committing funds shall involve a rigorous review and confirmation of the financial, legal and operational aspects of the proposed investment. Qualified, experienced and independent advisors shall be engaged to perform the required reviews and verifications of proponent information and projections. The experience of a chosen advisor shall be appropriate for the type of production systems (e.g. timber, carbon sequestration) that contribute to revenue generation from the forest. EEEEEEEEEEEEEEEEEEEEEEEEEEEEEE Forestland Asset specifying the scope, frequency and degree of rigor for the periodic reviews. For investments dependent on emerging product markets, monitoring shall be more frequent and more rigorous than with traditional forestland investments. Due diligence at the exit stage of the investment shall involve a rigorous review and confirmation of the financial aspects of the proposed sale.]]]]]]]]]]]]]]]] VI. - VALUATIONS All calculations and computations shall be on a fair market value basis unless otherwise noted. Market value, as defined by the Uniform Standards of Professional Appraisal Practice (USPAP) of the Appraisal Foundation, shall be incorporated when reporting fair market value for accounting purposes. The standards of the forest industry in appraising forestlands shall be followed where there are differences between USPAP and forest industry practices. GLOSSARY OF TERMS Key words used in the policy are defined in CalPERS Master Glossary of Terms. **Timber** Real **Estate** 1998 **Approved by the Policy Subcommittee:** August 12, 1998 **Adopted by the Investment Committee:** September 14,

Revised by the Policy Subcommittee:	October		2000
Approved by the Investment Committee:	November	13,	2000
Revised by the Policy Subcommittee:	December	14,	2001
Approved by the Investment Committee:	December	17,	2001
Revised by the Policy Subcommittee:	December	10,	2004
Approved by the Investment Committee:	February	14,	2005
QQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQQ	Name change t December 14, 200 Approved by the		Program
February 19, 2008			
SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS	Policy Subcommittee	:	-April
19, 2010			
TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	ed by the Investmen	t Committee:	
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Asset Class Glossary: Fixed Income Policy: Inflation Assets

Benchmark

A set of securities with associated weights that provide a passive representation of a manager's investment process. The benchmark return is usually used to measure a manager's performance results.

Cash Commodity

A physical commodity, not a commodity future, the prices of which can be different for a variety of reasons

Chief Investment Officer

Heads the CalPERS Investment Office and works with the Investment Committee to develop a long-term investment policy and asset allocation strategy for the Public Employees' Retirement Fund.

Collateral

Assets used as a support for financial risk, and can be used to fulfill financial obligations. In the context of futures, the collateral on deposit as margin in brokerage accounts is typically low risk financial assets such as cash, Treasury bills or bonds held by the futures brokerage firm as security against adverse market moves of futures positions.

Commodities and Futures Trading Commission (CFTC)

An agency of the U.S. federal government that regulates the U.S. commodity futures and options markets. The CFTC is responsible for insuring market integrity and protecting market participants against manipulation, abusive trading practices, and fraud.

Commodity

A commodity is a good that can be traded and delivered. The prices of commodities are determined on the basis of an active market. Typically commodities are of uniform quality and are produced by many different producers. Physical commodities, which can be stored, include energy (oil and its products, natural gas), metals (both industrial and precious), and agricultural products (grain, livestock, other "softs"). Non-physical commodities include electricity and emission credits

Counter Party

The entity which is in the opposing position to a transaction.

Custodian

A bank or other financial institution that provides custody of stock certificates and other assets of an institutional investor.

Derivative

An instrument whose value is based on the performance of an underlying financial asset,

index, or other investment. Classes of derivatives include futures contracts, options, currency forward contracts, and swaps.

Duration

A measure of price sensitivity to interest rate changes. Duration is the anticipated percentage move in price given a 100 basis point (1 percent) move in interest rates.

Fitch Ratings (Fitch)

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 10-symbol system. The ranges extend from the highest investment quality, which is AAA, to the lowest credit rating, which is D. Securities rated BBB- or greater are considered investment-grade. Securities rated BB+ or below are considered to be speculative.

Foreign Debt Policy

CalPERS' guidelines for permissible country debt investments, as most recently amended.

FSA

The Financial Services Authority in the United Kingdom. This is the main independent financial regulatory agency in the UK, authorized by the government. The FSA regulates most financial services markets, exchanges and firms in the UK.

Futures

Exchange-traded contracts to buy or sell a standard quantity of a given instrument, at an agreed price, and date. A future differs from an option in that both parties are obliged to abide by the transaction. Futures are traded on a range of underlying instruments including commodities, bonds, currencies, and stock indices.

General Consultant

An individual or organization that provides specialized professional assistance to the CalPERS Board of Administration in determining the pension fund's asset allocation model or optimal combination of investments in order to maximize risk-adjusted investment returns in a manner consistent with CalPERS' long-term pension liabilities.

Global Debt

Debt issued by a national government, subnational entity or corporation denominated in the U.S. dollar or other major currency and issued in major markets, typically New York or London, under the laws of those markets.

High Quality LIBOR

A limited-duration, highly liquid, LIBOR-based fund managed by CalPERS staff.

Investment Grade

A minimum credit rating of Baa3 by Moody's Investor Service or BBB- for Standard &

Poor's Corporation, and BBB- by Fitch. Investment grade ratings apply to issuers whose financial risk is relatively low and the probability of future payment relatively high.

ISDA

ISDA is an acronym for the International Swaps and Derivatives Association. ISDA represents participants in the privately negotiated derivatives industry, and is the largest global financial trade association. ISDA has pioneered efforts to identify and reduce the sources of risk in the derivatives and risk management business through the development of the ISDA Master Agreement

Leverage

A condition where a portfolio's market obligation may exceed the market-value-adjusted capital commitment by the amount of borrowed capital (debt).

Local Currency Debt

Debt issued by a national government, subnational entity or corporation denominated in local currency and issued in the local market, under local laws.

Moody's Investors Service (Moody's)

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 9-symbol system. The ranges extend from the highest investment quality, which is Aaa, to the lowest credit rating, which is C. Securities rated Baa3 or greater are considered investment grade. Securities rated Ba1 or below are considered to be speculative.

Option

Contracts that give the purchaser the right, but not the obligation, to buy or sell an underlying instrument at a certain price (the exercise or strike price) on or before an agreed date (the exercise period). For this right, the purchaser pays a premium to the seller. The seller (writer) of an option has a duty to buy or sell at the strike price, should the purchaser exercise his right.

Over the Counter (OTC)

The market for securities and traded products that are not listed on the major exchanges. OTC options are options with negotiated premium, strike price, and expiration date.

Overlay

An investment process which is used to modify the risk profile of a portfolio using financial instruments. An overlay can either increase or decrease exposure to a set of financial risk factors.

Risk

A measurable probability of losing or not gaining value. Risk is differentiated from uncertainty, which is not measurable. Risk in this context is also referred to as "standard"

deviation", which is a statistical measure of the degree to which an individual value in a probability distribution tends to vary from the mean of the distribution.

Standard & Poor's (S&P)

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 10-symbol system. The ranges extend from the highest investment quality, which is AAA, to the lowest credit rating, which is D. Securities rated BBB- or greater are considered investment grade. Securities rated BB+ or below are considered speculative.

State Street Bank Short-Term Investment Fund (STIF)

An institutional money market mutual fund managed by State Street Global Advisors.

Structured Note

An instrument representing a financial obligation created by modifying one or more standard financial obligations or instruments (i.e., a bond or mortgage) to create a risk/return profile or cash flow payment stream. This type of risk or return profile differs from the standard financial instrument from which it derives.

Swap

Private agreement between two companies to exchange cash flows in the future according to a prearranged formula.